WHAT IS CLAIMED IS:

1. A liquid crystal device comprising a pair of substrates retaining a smectic liquid crystal therebetween and a plurality of bulkheads intersecting with a direction of a layer of the smectic liquid crystal provided on at least one of the pair of substrates,

wherein an elastic modulus E of the bulkheads, an outside pressure P, an area A1 of the substrate, a total area A2 of contact surfaces between the bulkheads and the substrate, and a volumetric shrinkage ratio $\Delta Vlc/Vlc$ of the smectic liquid crystal within an ambient temperature range of the liquid crystal device satisfy the following relation:

$$(1/E) \times P \times (A1/A2) \geq \Delta Vlc/Vlc.$$

2. A liquid crystal device comprising a pair of substrates retaining a smectic liquid crystal therebetween and a plurality of stripe bulkheads intersecting with a direction of a layer of the smectic liquid crystal provided on at least one of the pair of substrates,

wherein an elastic modulus E, a height L, a spacing D, and a length H of the bulkheads, an outside pressure P, an area A1 of the substrate, a total area A2 of contact surfaces between the bulkheads and the substrate, and a volumetric

shrinkage amount ΔVlc within an ambient temperature range of the liquid crystal device, of the smectic liquid crystal filled in a space defined by the pair of substrates and a pair of bulkheads satisfy the following relation:

$$(1/E) \times L \times P \times (A1/A2) \geq \Delta Vlc/(D \times H).$$

3. The liquid crystal device according to Claim 1 or 2, wherein the bulkheads intersect at an angle of approximately 90° with the direction of the layer of the smectic liquid crystal.

4. The liquid crystal device according to Claim 1 or 2, wherein the bulkheads intersect at an angle except for 90° with the direction of the layer of the smectic liquid crystal.

5. The liquid crystal device according to Claim 1 or 2, wherein the pair of substrates are bonded to each other by the bulkheads.

6. The liquid crystal device according to Claim 1 or 2, wherein a width of the bulkheads is less than 10 μm.

7. The liquid crystal device according to Claim 1 or 2, wherein a pitch of the bulkheads is not

less than 360 μm.

8. The liquid crystal device according to Claim 1 or 2, wherein the elastic modulus of the bulkheads is in a range of 200 to 500 (10^5 N/m^2).

9. The liquid crystal device according to Claim 1 or 2, wherein the bulkheads are made of an acrylic photosensitive resin.

10. The liquid crystal device according to Claim 1 or 2, wherein the smectic liquid crystal is a ferroelectric liquid crystal or an antiferroelectric liquid crystal.

11. A method of producing a liquid crystal device, comprising in the order mentioned below the steps of:

(1) forming a stripe bulkhead on a first substrate;

(2) rubbing the first substrate substantially parallel to the direction of the stripe of the bulkhead;

(3) opposing and bonding the first substrate and a second substrate having no bulkhead formed thereon to each other, thereby forming a cell;

(4) filling the cell with a liquid crystal;

and

(5) cooling the cell to a temperature not more than a smectic phase transition temperature of the liquid crystal, thereby forming a smectic layer substantially perpendicular to the bulkhead,

wherein an elastic modulus E of the bulkhead, an atmospheric pressure P, an area A1 of the second substrate, a total area A2 of contact surfaces between the bulkhead and the second substrate, and a volumetric shrinkage ratio $\Delta Vlc/Vlc$ of the liquid crystal within a temperature variation range in the steps including and succeeding the step (4) satisfy the following relation:

$$(1/E) \times P \times (A1/A2) \geq \Delta Vlc/Vlc.$$